CLAIMS:

1. A system for identifying or localizing a serial data stream in a deserialized output or for synchronizing the deserialized output with the serial data stream, whereby the serial data stream is applied to an input port (PORT0) of a multiplexing device (10) and the deserialized output is provided at a plurality of n output ports (PORT1-PORT5) of the multiplexing device (10), the system comprising:

   pattern recognition units coupled to each one of the plurality of n output ports (PORT1-PORT5) and being adapted for recognizing a deserialized identifier pattern corresponding to an identifier pattern within the serial data stream and for detecting a phase of the deserialized identifier pattern in the deserialized output, and

   phase shifting units coupled to each one of the plurality of n output ports (PORT1-PORT5) and being adapted for shifting the phase of the output of each respective port (PORT1-PORT5) in correspondence with the detected phase of the deserialized identifier pattern.

2. The system of claim 1, further comprising a deserializing unit for deserializing the identifier pattern within the serial data stream to the deserialized identifier pattern.

3. A testing unit for testing a multiplexing device (10) adapted for receiving a serial data stream at an input port (PORT0) and for providing a deserialized output at a plurality of n output ports (PORT1-PORT5), whereby a known serial data sequence is applied to the input port (PORT0), the testing unit comprising:

   a detecting system for detecting the known serial data sequence in the deserialized output, whereby the serial data stream is applied to an input port (PORT0) of a multiplexing device (10) and the deserialized output is provided at a plurality of n output ports (PORT1-PORT5) of the

multiplexing device (10), the detecting system comprising:

pattern recognition units coupled to each one of the plurality of n output ports (PORT1-PORT5) and being adapted for recognizing a deserialized identifier pattern corresponding to an identifier pattern within the serial data stream and for detecting a phase of the deserialized identifier pattern in the deserialized output, and

phase shifting units coupled to each one of the plurality of n output ports (PORT1-PORT5) and being adapted for shifting the phase of the output of each respective port (PORT1-PORT5) in correspondence with the detected phase of the deserialized identifier pattern;

a comparator unit for comparing the deserialized output corresponding to the known serial data sequence with an expected output signal, and

an analyzing unit for analyzing deviations of the deserialized output corresponding to the known serial data sequence with the expected output signal.

4. A method for identifying or localizing a serial data stream in a deserialized output provided at a plurality of n output ports (PORT1-PORT5) or for synchronizing the deserialized output with the serial data stream, the system comprising:

(a) providing a pattern recognition at each one of the plurality of n output ports (PORT1-PORT5) for recognizing a deserialized identifier pattern corresponding to an identifier pattern within the serial data stream and for detecting a phase of the deserialized identifier pattern in the deserialized output, and

(b) shifting the phase of the output of each respective port (PORT1-PORT5) in correspondence with the detected phase of the

deserialized identifier pattern.

5. The method of claim 4, further comprising a step prior to step (a) of deserializing the identifier pattern within the serial data stream to the deserialized identifier pattern.

5　6. A method for testing a multiplexing device (10) adapted for receiving a serial data stream at an input port (PORT0) and for providing a deserialized output at a plurality of n output ports (PORT1-PORT5), the method comprising the steps of:

(a) applying a known serial data sequence to the input port (PORT0),

10　(b) detecting the known serial data sequence in the deserialized output by:

(b1) providing a pattern recognition at each one of the plurality of n output ports (PORT1-PORT5) for recognizing a deserialized identifier pattern corresponding to an identifier pattern within the serial data stream and for detecting a phase of the deserialized identifier pattern in the deserialized output, and

(b1) shifting the phase of the output of each respective port (PORT1-PORT5) in correspondence with the detected phase of the deserialized identifier pattern.

20　(c) comparing the deserialized output corresponding to the known serial data sequence with an expected output signal, and

(d) analyzing deviations of the deserialized output corresponding to the known serial data sequence with the expected output signal.

7. A software program or product, preferably stored on a data carrier, for
25　executing any one of the methods of claims 4 or 6 when run on a data processing system such as a computer.